

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A solid state imaging apparatus comprising
a photoelectric conversion section formed in an imaging area of a silicon substrate,
and
an isolation region formed in at least one part of the silicon substrate located around
the photoelectric conversion section and made of an isolation material having a thermal
expansion coefficient larger than silicon oxide and equal to or smaller than silicon.
2. (Original) The solid state imaging apparatus of Claim 1, wherein
the isolation region is made of the isolation material with which an isolation trench is
filled, said isolation trench being formed in at least one part of the silicon substrate located
around the photoelectric conversion section.
3. (Original) The solid state imaging apparatus of Claim 2 further comprising an
insulating film covering the bottom and sidewalls of the isolation trench.
4. (Original) The solid state imaging apparatus of Claim 2 further comprising an
impurity-doped semiconductor layer formed in a region of the silicon substrate forming the
bottom and sidewalls of the isolation trench by doping the region with an impurity.
5. (Original) The solid state imaging apparatus of Claim 1, wherein
the isolation material is silicon.
6. (Currently Amended) The solid state imaging apparatus of Claim 5 further
comprising a MOS transistor formed in the imaging area,
wherein the ~~silicon layer~~ isolation material contains an impurity of the opposite
conductivity type to source and drain regions of the MOS transistor.

7. (Currently Amended) The solid state imaging apparatus of Claim 5, wherein the ~~silicon layer~~ isolation material is made of amorphous silicon, polycrystalline silicon or porous silicon.

8. (Original) A method for fabricating a solid state imaging apparatus, said method comprising the steps of:

forming an isolation trench by etching a region of a silicon substrate;
forming an insulating film to cover the bottom and sidewalls of the isolation trench;
after the formation of the insulating film, filling the isolation trench with a silicon layer; and
implanting an impurity into a predetermined region of the silicon layer.

9. (Original) The method of Claim 8 further comprising the step of making the silicon layer porous.

10. (Original) The method of Claim 8, wherein
the step of making the silicon layer porous includes the steps of:
attaching an electrode to part of the silicon layer; and
immersing, in a solution, part of the silicon layer excluding the part thereof to which the electrode is attached and then passing current via the electrode through the silicon layer.

11. (Currently Amended) A camera comprising the solid state imaging apparatus according to Claim 1 ~~any one of Claims 2 through 7~~.